

Attorney's Docket No. 9099-2IP

PATENT

IN THE UNITED STATES DESIGNATED OFFICE (DO/US)

In re: Application of Scarantino et al.

Serial No.: To be Assigned

Filed: Concurrently Herewith

For: METHODS OF CALIBRATING CHRONICALLY TISSUE IMPLANTED
SENSORS USING CHRONICALLY TISSUE IMPLANTED GENERATING
ELECTRODES AND RELATED DEVICES

Date: March 28, 2002

Box PCT
Commissioner for Patents
Washington, DC 20231

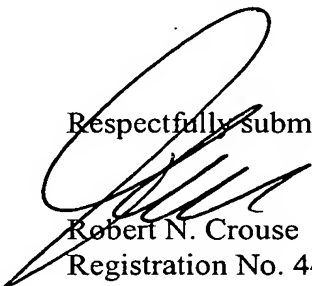
INFORMATION DISCLOSURE STATEMENT

Sir:

The patents listed on the attached PTO-1449 as Items 1-2, 115-116 and 130-131 were cited in the International Search Report of corresponding International Application No. PCT/US00/08310, a copy of which is enclosed. Copies of these cited references are also enclosed. The Examiner may wish to consider comments in the ISR and IPER as well.

All other items were cited in parent application Serial No. 09/407,359, filed September 29, 1999. As the benefit of this application is claimed under 35 U.S.C. §120, no copies need to be furnished in accordance with 37 C.F.R. §1.98(d); however, copies will be furnished on request. It is requested that these documents be considered by the Examiner and officially made of record in accordance with the provisions of 37 C.F.R. §1.97 and Section 609 of the MPEP.

Respectfully submitted,


Robert N. Crouse
Registration No. 44,635

20792

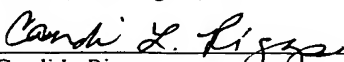
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Candi L. Riggs
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JC13 PCT/PTO 26 MAR 2002

FORM PTO-1449 U.S. Department of Commerce Patent and Trademark Office LIST OF DOCUMENTS CITED BY APPLICANT (Use several sheets if necessary)	Attorney Docket Number 9099-2IP	Application No. To Be Assigned
	Applicants: Scarantino et al.	
	Filing Date Concurrently Herewith	Group

U. S. PATENT DOCUMENTS

Examiner Initial		Document Number	Date	Name	Class	Subclass	Filing Date if Appropriate
	1	4,655,880	04/07/87	Liu	204	1 T	
	2	4,571,292	02/18/86	Liu et al.	204	412	
	3	Re. 32,361	02/24/87	Duggan	128	696	Re. 32,361
	4	3,638,640	02/01/72	Shaw	128	2R	3,638,640
	45	3,972,320	08/03/76	Kalman	128	002.1A	3,972,320
	6	4,163,380	08/07/79	Masoner	72	342	4,163,380
	7	4,326,535	04/27/82	Steffel et al.	128	631	4,326,535
	8	4,361,153	11/30/82	Slocum et al.	128	419.P	4,361,153
	9	4,397,313	08/09/83	Vaguine	128	399	4,397,313
	10	4,397,314	08/09/83	Vaguine	128	399	4,397,314
	11	4,416,283	11/22/83	Slocum	128	419 PG	4,416,283
	12	4,431,004	02/14/84	Bessman et al.	128	635	4,431,004
	13	4,494,545	01/22/85	Slocum et al.	128	1.5	4,494,545
	14	4,519,401	05/28/85	Ko et al.	118	748	4,519,401
	15	4,523,279	06/11/85	Sperinde et al.	364	416	4,523,279
	16	4,541,901	09/17/85	Parker et al.	29\04	1 T	4,541,901
	17	4,543,953	10/01/85	Slocum et al.	128	419.PT	4,543,953
	18	4,556,063	12/03/85	Thompson et al.	128	419.PT	4,556,063
	19	4,571,292	02/18/86	Liu et al.	204	412	4,571,292
	20	4,571,589	02/18/86	Slocum et al.	128	419 PG	4,571,589
	21	4,575,676	03/11/86	Palkuti	324	158 D	4,575,676
	22	4,625,733	12/02/86	Säynäjäkangas	128	687	4,625,733
	23	4,638,436	01/20/87	Badger et al.	364	414	4,638,436
	24	4,651,741	03/24/87	Passafaro	128	633	4,651,741
	25	4,655,880	04/07/87	Liu	204	1 T	4,655,880
	26	4,681,111	07/21/87	Silvian	128	419.PT	4,681,111

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LIST OF DOCUMENTS CITED BY APPLICANT

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Group

	27	4,703,756	11/03/87	Gough et al.	128	635	4,703,756
	28	4,719,919	01/19/88	Marchosky et al.	128	401	4,719,919
	29	4,750,495	06/14/88	Moore et al.	128	419 PG	4,750,495
	30	4,769,547	09/06/88	Uber III	250	374	4,769,547
	31	4,793,825	12/27/88	Benjamin et al.	128	419	4,793,825
	32	4,796,641	01/10/89	Mills et al.	128	748	4,796,641
	33	4,804,847	02/14/89	Uber III	250	370 F	
	34	4,846,191	07/11/89	Brockway et al.	128	748	
	35	4,847,617	07/11/89	Silvian	340	970.160	
	36	4,900,422	02/13/90	Bryan et al.	204	401	
	37	4,919,141	04/24/90	Zier et al.	128	635	
	38	4,935,345	06/19/90	Guilbeau et al.	435	014	
	39	4,944,299	07/31/90	Silvian	128	419.PG	
	40	4,958,645	09/25/90	Cadell et al.	128	903	
	41	4,961,422	10/09/90	Marchosky et al.	128	399	
	42	4,970,391	11/13/90	Uber , III	250	374	
	43	4,976,266	12/11/90	Huffman et al.	128	659	
	44	4,989,601	02/05/91	Marchosky et al.	128	399	
	45	5,008,546	04/16/91	Mazziotto et al.	250	366	
	46	5,012,411	04/30/91	PolICASTRO et al.	364	413.06	
	47	5,098,547	03/24/92	Bryan et al.	204	401	
	48	5,109,850	05/05/92	Blanco et al.	128	635	
	49	5,117,824	06/02/92	Keimel et al.	128	419 PG	
	50	5,126,937	06/30/92	Yamaguchi et al.	364	413.11	
	51	5,127,404	07/07/92	Wyborny et al.	128	419.P	
	52	5,137,022	08/11/92	Henry	128	419.PT	
	53	5,163,380	11/17/92	Duffy et al.	119	015	
	54	5,186,172	02/16/93	Fiddian-Green	128	632	
	55	5,193,538	03/16/93	Ekwall	128	419 PT	

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	56	5,197,466	03/30/93	Marchosky et al.	128	399	
	57	5,205,294	04/27/93	Flach et al.	128	696	
	58	5,215,887	06/01/93	Saito	435	014	
	59	5,264,843	11/23/93	Silvian	340	870	
	60	5,309,085	05/03/94	Sohn	324	71.5	
	61	5,314,450	05/24/94	Thompson	607	032	
	62	5,324,315	06/28/94	Grevious	607	060	
	63	5,330,634	07/19/94	Wong et al.	204	409	
	64	5,354,314	10/11/94	Hardy et al.	128	653	
	65	5,354,319	10/11/94	Wyborny et al.	607	032	
	66	5,355,880	10/18/94	Thomas et al.	128	633	
	67	5,372,133	12/13/94	Hogen et al.	128	631	
	68	5,383,909	01/24/95	Keimel	607	5	
	69	5,425,361	06/20/95	Fenzlein et al.	128	635	
	60	5,431,171	07/11/95	Harrison et al.	128	698	
	70	5,444,254	08/22/95	Thomson	250	370.07	
	71	5,466,246	11/14/95	Silvian	607	032	
	72	5,470,345	11/28/95	Hassler et al.	607	36	
	73	5,476,488	12/19/95	Morgan et al.	607	030	
	74	5,480,415	01/02/96	Cox et al.	607	032	
	75	5,481,262	01/02/96	Urbas et al.	340	870.17	
	76	5,497,772	03/12/96	Schulman et al.	128	635	
	77	5,505,828	04/09/96	Wong et al.	205	777.5	
	78	5,507,786	04/16/96	Morgan et al.	607	27	
	79	5,517,313	05/14/96	Colvin, Jr.	356	417	
	80	5,535,752	07/16/96	Halperin et al.	128	670	
	81	5,538,005	07/23/96	Harrison et al.	128	698	
	82	5,545,187	08/13/96	Bergstrom et al.	607	31	
	83	5,549,113	08/27/96	Halleck et al.	128	633	

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					Applicants: Scarantino et al.		
					Filing Date Concurrently Herewith		Group
	84	5,549,654	08/27/96	Powell	607	25	
	85	5,556,421	09/17/96	Prutchi et al.	607	36	
	86	5,562,713	10/08/96	Silvian	607	032	
	87	5,571,148	11/05/96	Loeb et al.	607	40-43	
	88	5,591,217	01/07/97	Barreras	607	5	
	89	5,593,430	01/14/97	Renger	607	9	
	90	5,620,472	04/15/97	Rahbari	128	903	
	91	5,620,475	04/15/97	Magnusson	607	30	
	92	5,620,479	04/15/97	Diederich	607	97	
	93	5,626,630	05/06/97	Markowitz et al.	607	060	
	94	5,626,862	05/06/97	Brem et al.	424	426	
	95	5,628,324	05/13/97	Sarbach	128	670	
	96	5,630,413	05/20/97	Thomas et al.	128	633	
	97	5,720,771	02/24/98	Snell	607	60	
	98	5,732,704	03/31/98	Thurston et al.	128	659	
	99	5,744,804	04/28/98	Meijer et al.	250	369	
	100	5,744,805	04/28/98	Raylman et al.	250	370.01	
	101	5,759,199	06/02/98	Snell et al.	607	60	
	102	5,791,344	08/11/98	Schulman et al.	128	635	
	102	5,814,089	09/29/98	Stokes et al.	607	32	
	104	5,833,603	11/10/98	Kovacs et al.	600	317	
	105	5,879,375	03/09/99	Larson et al.	607	30	
	106	5,891,179	04/06/99	Er et al.	607	27	
	107	5,918,110	06/29/99	Abraham-Fuchs et al.	438	48	
	108	5,932,879	08/03/99	Raylman et al.	250	370.06	
	109	6,047,214	04/04/00	Mueller et al.	607	61	
	110	6,076,009	06/13/00	Raylman et al.	600	436	
	111	6,240,312	05/29/01	Alfano et al.	600	476	
	112	4,678,916	07/07/87	Thomson	250	370	

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				Filing Date Concurrently Herewith		Group	
	113	5,117,113	05/26/92	Thomson et al.	250	370.07	
	114	5,564,434	10/15/96	Halperin et al.	128	675	
FOREIGN PATENT DOCUMENTS							
		Document Number	Date	Country	Class	Subclass	Translation Yes No
	115	WO98/58250	12/23/98	PCT			X
	116	EP0537761	04/21/93	EPO			X
	117	DE 3219558A1	01/12/83	German			X
	118	0 420 177 A1	03/04/91	EPO			X
	119	EP0537761A2	04/21/93	EPO			X
	120	EP 0245073B1	22/12/93	EPO			X
	121	DE 4341903A1	14/06/95	German			X
	122	EP 0386218B1	10/01/96	EPO			X
	123	WO 97/33513	18/09/97	PCT			
	124	WO 98/02209A2	22/01/98	PCT			X
	125	WO 98/43701	08/10/98	PCT			X
	126	PCT/US98/05965	12/02/98	PCT			X
	127	WO 98/58250	12/23/98	PCT			X
	128	WO 00/29096	25/05/00	PCT			X
	129	WO 95/17809	06/07/95	PCT			X
OTHER DOCUMENTS (Including Author, Title, Date, Pertinent Pages, Etc.)							
	130	International Search Report, PCT/US00/08310, mailed 10/25/00.					
	131	International Preliminary Examination Report, PCT/US00/08310, mailed 11/30/01.					
	132	Barber et al., "Comparison of NaI(Tl), CdTe, and HgI ₂ surgical probes: Physical characterization," Med. Phys. 18 (3), pp. 373-381 (May/June 1991).					
	133	Berthold et al., "Method for in-situ detection of tritium in water," McDermott Technology Inc./RDTPA 99-03, pp. 1-9 (Sept. 19-22, 1999).					
	134	Brochure, "Be as smart as you can be with BMDS and Smart Alec™ your partners in intelligence," Bio Medic Data Systems, Inc. (©1999).					

 EXAMINER
 *EXAMINER

DATE CONSIDERED

Initial if reference considered, whether or not citation is in conformance with MPEP 609; draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

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		Applicants: Scarantino et al.	
		Filing Date Concurrently Herewith	Group
	135	Brochure, "Come along for the incredible journey in the development of the IPTT-200," Bio Medic Data Systems, Inc. (©2000).	
	136	Cosofret et al., "Microfabricated sensor arrays sensitive to pH and K ⁺ for ionic distribution measurements in the beating heart," <i>Analytical Chemistry</i> , Vol. 67, pp. 1647-53 (1995).	
	137	Dewhirst, "Concepts of oxygen transport at the microcirculatory level," <i>Seminars in Radiation Oncology</i> , Vol. 8, 1998, pp. 143-150.	
	138	Dimitrakopoulou et al., "Studies with positron emission tomography after systemic administration of fluorine-18-uracil in patients with liver metastases from colorectal carcinoma," <i>J. Nuc. Med.</i> , 34 (7), pp. 1075-1081 (July 1993).	
	139	Griffiths et al., "The OxyLite: a fibre-optic oxygen sensor," <i>British J. of Radiology</i> , Vol. 72 pp. 627-630 (1999).	
	140	Hamburger et al., "Primary bioassay of human tumor stem cells," <i>Science</i> , Vol. 197, pp. 461-463 (29 July 1977).	
	141	Hines, "Advanced Biotelemetry Systems for Space Life Sciences: PH Telemetry," <i>Biotelemetry XIII</i> , March 26-31, pp 131-137 (1995).	
	142	Hoffman et al., "Intraoperative probes and imaging probes," <i>Eur. J. Nuc. Med.</i> , Vol. 26, No. 8 pp. 913-935 (August 1999).	
	143	Kastrissios et al., "Screening for sources of interindividual pharmacokinetic variability in anticancer drug therapy: utility of population analysis," <i>Cancer Investigation</i> 19(1), pp. 57-64 (2001).	
	144	Kern, David, "Tumor chemosensitivity and chemoresistance assays," <i>Am. Cancer Soc.</i> , Vol. 79, No. 7, pp. 1447-1450 (April 1, 1997).	
	145	Kissel et al., "Noninvasive determination of the arterial input function of an anticancer drug from dynamic PET scans using the population approach," <i>Med. Phys.</i> 26 (4), pp. 609-615 (April 1999).	
	146	Koutcher et al., "Potentiation of a three drug chemotherapy regimen by radiation," <i>Cancer Research</i> 53, pp. 3518-3523 (August 1, 1993).	
	147	Ludwig Institute for Cancer Research, Annual Report 1995, http://www.icp.ucl.ac.be/report95/licr95.html .	
	148	Mackay, "Bio-Medical Telemetry, Sensing and Transmitting Biological Information from Animals and Man" Second edition. New York, NY: IEEE Press (1993).	
	149	Marzouk et al., "Electrodeposited Iridium Oxide pH Electrode for Measurement of Extracellular Myocardial Acidosis during Acute Ischemia," <i>Anal. Chem.</i> , Vol. 70, pp. 5054-5061 (1998).	
	150	Mittal et al., "Evaluation of an Ingestible Telemetric Temperature Sensor for Deep Hyperthermia Applications," <i>Int. J. Radiation Oncology Biol. Phys.</i> , Vol. 21, pp. 1353-1361 (1991).	
	151	Oshima et al., "Development of Micro-Telemetering Multi-Sensor Capsule System with newly developed LSI for the clinical applications," <i>Transducers '87, The 4th International Conference on Solid-State Sensors and Actuators</i> ; pp 163-166 (1987).	
	152	Piwnica-Worms et al., "Functional imaging of multidrug-resistant P-glycoprotein with an organotechnetium complex," <i>Cancer Research</i> 53, pp. 977-984 (March 1, 1993).	

 EXAMINER
 *EXAMINER

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		Applicants: Scarantino et al.	
		Filing Date Concurrently Herewith	Group
	153	Presant et al., "Enhancement of fluorouracil uptake in human colorectal and gastric cancers by interferon or by high-dose methotrexate: an <i>in vivo</i> human study using noninvasive ¹⁹ F-magnetic resonance spectroscopy," J. Clinical Oncology, 18 (2) pp. 255-261 (January 2000).	
	154	Presant et al., "Human tumor fluorouracil trapping: clinical corrections of <i>in vivo</i> ¹⁹ F nuclear magnetic resonance spectroscopy pharmacokinetics," J. Clinical Oncology, 8 (11) pp. 1868-1873 (November 1990).	
	155	Small Business Innovation Research Program Phase One Grant Application entitled "An Implantable Multi-channel System for Monitoring Tumors," submitted on or about December 1996 to U.S. Public Health Service.	
	156	Small Business Innovation Research Program Phase One Grant Application entitled "An Implantable Multi-channel System for Monitoring Tumors," resubmitted with revisions on or about August 1997 to the National Institute of Health.	
	157	Small Business Innovation Research Program Phase One Grant Application entitled "An Implantable Multi-channel System for Monitoring Tumors," resubmitted to the U.S. funding authority on or about April 1998.	
	158	Stevens et al., "5-Flourouracil metabolism monitored <i>in vivo</i> by ¹⁹ F NMR," Br. J. Cancer 50, pp. 113-117 (1984).	
	159	Taylor et al., "The Forces in the Distal Femur and the Knee During Walking and Other Activities Measured by Telemetry," J. of Anthroplasty, Vol. 13, No. 4, pp. 428-437 (1998).	
	160	Von Hoff et al., "Selection of cancer chemotherapy for a patient by an <i>in vivo</i> assay versus a clinician," J. Nat'l. Cancer Inst. 82 (2), pp. 110-116 (January 17, 1990).	
	161	Watanabe et al., "A Preliminary Report on Continuous Recording of Salivary pH Using Telemetry in an Edentulous Patient," Int'l J. Proshodontics, Vol. 12, No. 4, pp. 313-317 (1999).	
	162	Webster, Editor, "Design of Cardiac Pacemakers," IEEE Press, pp. 155-157 (1995).	
	163	Wolf et al., "Potential of microsensor-based feedback bioactuators for biophysical cancer treatment," Biosensors & Bioelectronics, Vol. 12, pp. 301-309 (1997).	
	164	Wolf et al., "Tumor trapping of 5-fluorouracil: <i>in vivo</i> ¹⁹ F NMR spectroscopic pharmacokinetics in tumor-bearing humans and rabbits," Proc. Natl. Acad. Sci. USA, 87, pp. 492-496 (January 1990).	
	165	Yarnell et al., "Drug assays on organ cultures of biopsies from human tumours," Brit. Med., J., 2, pp. 490-491 (1964).	
	166	Zanzonico et al., "The intraoperative gamma probe: basic principles and choices available," Seminars in Nucl. Med., XXX (1), pp. 33-48 (January 2000).	
	167	Zuckier et al., "Remotely Pollable Geiger-Muller Detector for Continuous Monitoring of Iodine-131 Therapy Patients," J. of Nuclear Med., Vol. 39, No. 9, pp. 1558-1562 (9/98).	
	168	Fernald, "A microprocessor-based system for the fast prototyping of implantable instruments for biomedical research applications", Doctoral Dissertation, Elect. & Computer Eng., NC State Univ., (1992).	
	169	Gerweck, "Tumor pH: Implications for Treatment and Novel Drug Design," 8 Seminars in Radiation Oncology, No. 5, pp. 176-182 (July 1998).	

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	170	Gilligan et al. , "Evaluation of a subcutaneous glucose sensor out to 3 months in a dog model," <i>Diabetes Care</i> , Vol. 17, pp. 882-887 (1994).	
	171	Gschwend et al., "A general-purpose implantable multichannel telemetry system for physiological research," <i>Biotelemetry Patient Monitoring</i> , Vol. 6, pp. 107-117 (1979).	
	172	Mueller et al., "Feasibility of inductive powering of miniature low-power biotelemetry for use with microfabricated biomedical sensors," <i>Proc. Biotelemetry XIII</i> , Williamsburg, VA, pp. 372-377 (Mar. 1995).	
	173	Williams et al., "Multipurpose chip for physiological measurements," <i>IEEE International Symposium on Circuits and Systems</i> , Vol. 4, pp. 255-258, Proc. 1994.	

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